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10/562,292	12/22/2005	Joseph Briaire	NL 030767	3304

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NXP, B.V.  
NXP INTELLECTUAL PROPERTY DEPARTMENT  
M/S41-SJ  
1109 MCKAY DRIVE  
SAN JOSE, CA 95131

EXAMINER
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NGUYEN, KHAI M

ART UNIT	PAPER NUMBER
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2819

NOTIFICATION DATE	DELIVERY MODE
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07/31/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

## Office Action Summary

Application No.

10/562,292

Applicant(s)

BRIAIRE, JOSEPH

Examiner

Khai M. Nguyen

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2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 and 6 is/are rejected.
- 7) ☒ Claim(s) 1, 3-5, and 7-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show features of claims 11-13 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Thus, these claims are examined as best understood by the examiner.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, and 7-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Long (US 5,164,725), [hereinafter Long].

Regarding claims 1 & 9, Long discloses (Figs. 1-4) a digital to analog converter (DAC) (title and abstract) and a method of using the same, comprising a first current source (including M1, M3, and M4 – see Fig. 3) connected to a plurality of common lines (VDD line, dummy bus or line 11, and dual output bus 14 of Figs. 1 & 3 – col. 3, lines 33-35) and to a first node (I1 of Fig. 1), wherein said first node (I1) forms an output of the digital to analog converter (Figs. 1, 3) via a respective switch (M3) whose state is controlled in accordance with a first applied digital signal (received at gate of M3) to be converted, the digital to analog converter further (Figs. 1-4) comprising a second current source (including M2, M5, and M6) which is associated with said first current source (M1, M4, M4), wherein said second current source (M2, M5, M6) is connected to at least one of said common lines (VDD, 11, and 14) and to a second node (I2 of Figs. 1 & 3) via a respective second switch (M5) whose state is controlled in accordance with a

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second applied digital signal (received at gate of M5), characterized in that second applied digital signal causes said second respective switch (M5) to change state (between on/off) such that influences on at least said one of said common lines (11, 14) caused by said first and second switches (M3/M5 of Figs. 1, 3) switching are periodic.

Regarding claim 3, Long discloses the DAC of claim 1, wherein the current sources (M1-M6) of claim 1 are coupled to a power supply or source (VDD – Fig. 1).

Regarding claim 4, Long discloses the DAC of claim 1, wherein the current sources (M1-M6) of claim 1 are placed side-by-side, next together, or paired (see cell 10 of Fig. 1 and 3).

Regarding claim 5, Long discloses the DAC of claim 1, the first and second digital signals are carried on a data bus or line 15 of Fig. 1 and concurrently supplied to the first and second switches.

Regarding claims 7 and 11-13, Long discloses the DAC of claim 1, wherein output loads associated with the first and second nodes (I1, I2) are substantially matched (Fig. 4- and col. 3, lines 4-7).

Regarding claim 8, Long discloses the DAC of claim 1 further comprising a plurality of first current sources (M1, M3, M4 of each cell 10 of Fig. 3 - as shown in Fig. 1) and second current sources (M2, M5, M6 of each cell 10 of Fig. 3 – as shown in Fig. 1), wherein each of the first and second current sources (10) is provided with a respective switch (transistor switches as shown in Fig. 1).

Regarding claim 9, this claim is directed to a method of operating the DAC of claim 1. Thus, it is rejected for the same reason – see the rejection of claim 1.

Regarding claim 10, Long discloses the arrangement of each the first and second current sources is the identical or same (Fig. 1).

Regarding claim 12, Long discloses the DAC of claim 1, wherein load outputs including cable line (two or dual output bus 14 of Fig. 3).

***Allowable Subject Matter***

Claims 2 & 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the references of record neither reveal nor render obvious the recited combinations including a circuit for identifying clock cycles in the first digital signal in which, when applied to the first switch, a signal component causes the first current source to switch, and for generating, in response to the identification, a second digital signal including a signal component which, when applied to said second switch, causes the second current source to switch, in those clock cycles in which no such component is identified in the first digital signal, so that, during conversion, in any one clock cycle, either the first or the second current source is caused to switch.

***Prior Art***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (notes: references cited on PTO-892 Form attached herewith).

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**Contact Information**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571-272-1809. The examiner can normally be reached on 9:00 - 5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford (Rex) Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
April 20, 2007

Khai M. Nguyen  
Art Unit: 2819  
571-272-1809